

REMARKS

Claims 1-15 and 17 have been canceled. Claim 16 has been amended to include recitations from claims 14 and 15 and based on the disclosure at, e.g., page 13, lines 14-18, Fig. 1, page 14, line 13, page 14, line 24 and Examples 43-48 in the application. Claims 18 and 19 have been added based on, e.g., Examples 43-48.

Entry of the above amendment is respectfully requested.

Information Disclosure Statement Issue

On page 2 of the Office Action, the Examiner indicates that the Information Disclosure Statement filed December 15, 2005 fails to comply with 37 CFR 1.98(a)(1), and thus the Information Disclosure Statement has been placed in the application file, but the information referred to therein has not been considered.

In response, Applicants note that the disclosure statement filed December 15, 2005 was submitted simply to provide the Examiner with an official communication issued in the corresponding European application for his use. It did not contain any new prior art for his consideration, and thus no listing of prior art was provided. For the Examiner's convenience, Applicants submit herewith another copy of the official communication.

Election of Species Requirement

On page 2 of the Office Action, the Examiner sets forth the election requirement originally issued by telephone. The Examiner notes that a provisional election was made without traverse to prosecute Species 3, claims 1, 2, and 13-16, and the Examiner indicates that affirmation of this election must be made by Applicants in replying to this Office action.

In response to the Examiner's indication, Applicants hereby affirm the election without traverse of Species 3, and Applicants note that claims 1, 2, and 13-16 read on the elected species.

Objection to Claims

On page 5 of the Office Action, in paragraph 6, the Examiner has objected to claims 1, 2, and 13-15 because the claims should recite --material for an organic light-emitting device--.

In response, Applicants note that claims 1, 2, and 13-15 have been canceled, so this objection has been obviated, and thus withdrawal of this rejection is respectfully requested.

Rejection under 35 U.S.C. 112, Second Paragraph

On page 5 of the Office Action, in paragraph 8, claims 2 and 13-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite.

The Examiner's position is that the recitation of "[t]he light-emitting material" in line 1 of claims 2 and 13-15 has insufficient antecedent basis, and that claim 16 is indefinite by dependency.

In response, Applicants note that claims 2 and 13-15 have been canceled, and claim 16 has been amended so that it is in independent form. Accordingly, Applicants submit that this rejection has been overcome, and withdrawal of this rejection is respectfully requested.

Anticipation Rejections

On page 6 of the Office Action, in paragraph 10, claims 1, 2, 13, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Watase et al. (Solid-state luminescence and crystal structure of novel gold(I) benzenethiolate complexes). Also, on page 6 of the Office Action, in paragraph 11, claims 1, 2, 13, and 15 are rejected under 35 U.S.C. 102(b) as being

anticipated by Yam et al. (Molecular design of luminescent dinuclear gold(I) thiolate complexes: from fundamentals to chemosensing).

In response, Applicants note that claims 1, 2, and 13-15 have been canceled, so these rejections are moot. Accordingly, withdrawal of these rejections is respectfully requested.

Obviousness Rejection

On page 7 of the Office Action, in paragraph 14, claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watase et al. (Solid-state luminescence and crystal structure of novel gold(I) benzenethiolate complexes) as applied to claims 1, 2, 13 and 14 above or Yam et al. (Molecular design of luminescent dinuclear gold(I) thiolate complexes: from fundamentals to chemosensing) as applied to claims 1, 13, and 15 above in view of Moriyama et al. (US 2002/0068192 A1).

In response, Applicants note initially that the Examiner states that merely using a derivative of a known compound as a light-emitting layer in an organic light-emitting device does not render the present invention unobvious over the cited references. However, Applicants submit that in an actual organic light-emitting device, the structure of the device and composition of organic materials constituting the device must be optimized in consideration for emission energy, excitation energy, ionization potentials, and charge transport performance, and a mere substitution of a light-emitting layer in a known organic light-emitting device could not achieve light emission.

In the present invention, the light-emitting layer is formed by mixing a specific light-emitting material, a specific hole-transporting material and a specific charge-transporting material together. By using the light-emitting layer in an organic light-emitting device, electric

energy supplied to the device can be efficiently converted into light. None of the references cited by the Examiner can easily teach the mechanism of the present invention.

Moreover, at the time when the priority application of this application (JP2002-331555) was filed, Applicants submit that no phosphorescent material having an emission wavelength of blue light or a color close to blue had been known. In this regard, Applicants submit that the present invention has great patentability in that it has enabled emission of blue phosphorescence.


Thus, Applicants submit that the present invention is not obvious over the cited art, and withdrawal of this rejection is respectfully requested.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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WASHINGTON OFFICE

23373

CUSTOMER NUMBER

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The examination is being carried out on the following application documents:

Description, Pages

1-30 as originally filed

Claims, Numbers

1-17 as originally filed

Drawings, Sheets

1/1 as originally filed

The following documents are referred to in this communication; the numbering will be adhered to in the rest of the procedure:

D1: MA Y ET AL: "HIGH LUMINESCENCE GOLD(1) AND COPPER(1) COMPLEXES WITH A TRIPLET EXCITED STATE FOR USE IN LIGHT-EMITTING DIODES" ADVANCED MATERIALS, VCH VERLAGSGESELLSCHAFT, WEINHEIM, DE, vol. 11, no. 10, 9 July 1999 (1999-07-09), pages 852-857, XP000865127 ISSN: 0935-9648

D2: IRWIN M J; VITTAL J J; PUDDEPHATT R J: "Luminescent Gold(I) Acetylides: From Model Compounds to Polymers" ORGANOMETALLICS, vol. 16, 1997, pages 3541-3547, XP002272312

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Date 16.11.2005
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Sheet 2
FeuilleAnmelde-Nr.:
Application No.: 03 780 672.6
Demande n°:

Non-unity

The Examining Division agrees with the objection put forward by the Search Division as to lack of unity (Article 82 EPC), the reasons for the objection being as follows:

According to Article 82 EPC and Rule 30 (1), (2) EPC claims directed to different subject-matter may be included in one and the same European patent application only if they are linked by a single, general inventive concept.

There are three separate inventions as follows:

Invention 1: claims 1 (part), 2 (part), 3-12, 16 (part), 17

A material for an organic light emitting device comprising a gold complex in which gold is bonded to at least one carbon atom as defined in claim 1; organic light emitting device comprising this compound.

Invention 2: claims 1 (part), 16 (part)

A material for an organic light emitting device comprising a gold complex in which gold is bonded to at least one oxygen atom as defined in claim 1; organic light emitting device comprising this compound.

Invention 3: claims 1 (part), 2 (part), 13-15, 16 (part)

A material for an organic light emitting device comprising a gold complex in which gold is bonded to at least one sulfur atom as defined in claim 1; organic light emitting device comprising this compound.

There is no general inventive concept linking invention 1 with inventions 2 and 3 within the meaning of Article 82 EPC and Rule 30 EPC for the following reasons:

The common concept linking inventions 1, 2 and 3 is a gold complex in which gold is



bound to at least one atom other than gold.

The technical problem to be solved by these three inventions is to provide materials which can be used in light emitting devices.

The problem is solved in the application on file by using a gold complex containing at least one atom selected from carbon, oxygen and sulfur.

Thus it is clear that the three independent solutions to the same technical problem of the present application do not involve the same technical feature.

It is also clear that although the three independent solutions involve corresponding technical features; these cannot be considered as special technical features, because the common effect is known from the prior art for solving the same problem.

Gold complexes that are used in organic light emitting devices are known (see document XP000865127, figure 1, disclosing a phosphine gold complex which is used in an organic light emitting device). Thus, the conditions of Article 82 EPC and Rule 30 EPC are not met. Consequently, the application lacks a single inventive concept and does not fulfil the requirement of Article 82 EPC.

The application relates to a plurality of inventions, or groups of inventions, in the sense of Rule 13.1 PCT. They have been divided as defined above. The applicant paid the search fees for all 3 inventions.

The applicant has not indicated on which searched invention the further prosecution of the application should be based (cf. the Guidelines C-III, 7.10). The applicant is asked to state upon which invention further prosecution of this application should be based and to limit the application accordingly. Other inventions are to be excised from the claims, description and drawings if any.

The subject-matter to be excised may be made the subject of one or more divisional applications. The divisional applications must be filed directly at the European Patent Office in Munich or its branch at The Hague and in the language of the proceedings relating to the present application, cf. Article 76(1) and Rule 4 EPC. The time limit for filing



| Bescheid/Protokoll (Anlage) | | Communication/Minutes (Annex) | | Notification/Procès-verbal (Annexe) |
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divisional applications (Rule 25(1) EPC) must be observed.

The attention of the applicant is drawn to the fact that the application may not be amended in such a way that it contains subject-matter which extends beyond the content of the application as filed (Article 123(2) EPC).